/12 cont./ The vegetation, therefore, is the high and dense
137 forest of the "hydro-hygro-megathermic type," similar to that of the Rio Negro. The palm trees merit special attention. There are many varieties, sometimes following the course of the water and at other times dispersed through the woodland, which the forest dwellers use for various purposes.

We noted among the palms of "terra-firme" the tucum (astrocárium /Astrocaryum/ vulgare, Mart. or astr. tucumóides), the bacaba (oenocárpus bacaba, Mart.), the açaí /assai/ (eutérpe oleráceа, Mart.), the inajá (Maximiliána régia, Mart.), the pupunha (Guilerma /Guilielma/ speciosa), the paxiúba (iriartea exorrhiza or settígera, Mart.). Among those of the inundated places, the javarí (astrocárium javarí), the miritĭ or buritĭ (maurítia vinifera and m. flexuosa), the caraná (maurítia caraná), the jará (leopoldinia maior), the piaçaba (leopoldinia piassába, Wal.), the tucumã (astrocarium tucuman, Mart.). The climbing palm, the jacitára or Kamwarri, of the genus Desmoncus, is of great use in the indigenous basketry.

134 In general there is only a small superficial humous layer,
137 from which emerges the imposing millenary forest, and after that the sandy or clayey strata. A primary consequence of such a small humous base is that the trees have very superficial roots, and therefore the storms frequently knock them down, producing true clearings in the forests. A second consequence is that the
[241] land becomes unproductive after three or four years of the primitive native agriculture.

• 136 /13/ The rivers and igarapés are populated by many species of fish, which constitute one of the principal foods of the native.

The Amazonian fauna is not rich in varieties, and less so quantitatively. Besides the dangerous felines, the onça /jaguar/ (felix /Felis/ onça) and the gato macarajá /ocelot/ (felix pardalis and felix mucura, Neuw.), there are few animals that the native ordinarily can find and that offer him meat for food: the veado /deer/ (gen. cervus), the paca (coelógenys paca), the cotia /agouti/ (dasyprocta aguti, Lin.), queixada and caetitu /species of peccary/ (dicotyles labiátus, tayassú albirostris, and tayassú tayassú, Lin.), the anta /tapir/ (tapírus americánus,

/13 cont./

• 136 Briss.), the capivara /capybara/ (hidrochoerus /Hydrochoerus/ capybara, Erxl.) and macacos of various species.

The birds present the same scarcity in quantity, but a greater richness in variety and plumage. Among those appreciated as foods by the forest dwellers, we remember the tucanos /toucans/ (ramphastus /Ramphastos/), jacamim /trumpeter/ (psophídeos /Psophidae/), mutum /curassow/ (crax nigra, alector, etc.), jacú (penélopes), several pombos /doves/ (columba). Procured for their plumage are the garças /herons/ (heródias egretta) and other varieties of ardeídae, tucanos, and the extraordinary variety of araras and other psittacídeos /Psittacidae/.

The entomological contribution is more varied and richer, some varieties of insects also serving as food for the inhabitants of the region.

241 In this habitat in which the area to be cultivated is acquired by arduously hewing down the secular forest and which is only used regularly for three or four years, one can make only a small planting. We must remember that originally the Uaupés man had at his disposal only the stone ax, and that on the Uaupés the verões, that is, the periods of dry weather that permit "the burning of the clearing," are neither frequent nor extended.

361 The agriculture, on one side, as well as the fishing and the
[262] hunting, do not permit large human assemblages. As a consequence, we are going to find the population always dispersed in small groups located on the banks of the rivers and streams (igarapés), which, besides furnishing, with the fish, a favorite food, also serve them as a means of communication.

The demands of the natives being minimal, the conditions that determine their habitat are reduced to three: 1st, water, to drink, to bathe, and to give them fish; 2nd, the forest, which furnishes fruit and the wood for the fire; 3rd, land sufficiently fertile for the cultivation of mandioca, their principal vegetable food. Not always, but rather very rarely in the present situation can /14/ the first condition be reconciled with the third, according to native criteria. For this reason, they ordinarily plant the [241] clearing, "wexsé," some kilometers from their house. Compensating for the inconvenience of the distance, there is presented to

/42 cont./

*101 (3) -- CORÓ-CORÓ. -- It is the name of an aquatic bird (ibis melanocéphala), which is included in the group of the garças /herons/ (ardeídae). Pelo Rio Mar adds: "Green ibis Indians. On the rivers Cuerarí and Codoiarí, tributaries of the Uapés." Koch G. (Festschrift Eduard Seler, 205-6) indicates that they are the Koroá of the Kubewana group, live on the Cuduiarí, but came down from the upper Querarí.

/43/ Because of the coincidence of the location, we are of the opinion that the Coró-coró mentioned by Wallace are a subdivision of the Kubewana tribe, which is called Koxtóa (see below, IV -- 2, p /p. 151/), precisely the name of the bird Coró-coró.

• [136] It should be noted that the Coró-coró is an aquatic bird of the group of the ardeídae, like the garça /heron/, hence perhaps the calling of the Coró-coró tribe "Índios garças." It is true that Wallace locates the Coró-coró on the river Cuduiarí, and the Garça on the Papurí. It must be pointed out, however, that the locations obtained by Wallace are vague, and that, from the headwaters of the river Paca, one of the sources of the Papurí, the passage to the Uaupés and the Cuduiarí is relatively easy (cf. what was said above about the Aguará, II -- 6, a - c, 1 /p. 50 /).

(4) -- GI -- It is a word of the língua geral and means machado /ax/. We find in Pelo Rio Mar: "Gí-tapuias, Machado Indians. On the river Querarí, tributary of the river Uaupés." It disagrees, therefore, with Wallace's location, which places them on the river Cuiari, tributary of the Içana. Unless it is a matter of some confusion, since Wallace records, besides Cuiarí, the spelling Queriri for the same river. One must be dealing, then, with an Arwake tribe, like all those of these rivers.

Hamilton Rice, on his map, locates the Gí-tapuia on the igarapé of the Cigarro (below Uaupés). The existence there of that tribe, however, was not confirmed by any native of the vicinity consulted by us.

/111 cont./

*101 2) Habitat and inhabitants. -- One group of Yebá-masã lives on the headwaters of the igarapé Iaíssa (igarapé of the house of the onça /jaguar/), still in Brazilian territory; but the totality is in Colombian territory, in the interior of the [161] forest watered by the Komé-ya. Probably they do not exceed two or three hundred members.

[115] 3) Divisions. -- The five primary divisions were furnished to us by an Indian of the tribe, named Joaquim, about 25 years of age (in 1954), and the last two, by the Indian João, 40 years old, of the Tuyuka tribe, from the maloca of the Iaíssa. The Roéra and Emõã appear in the following divisions. We were not able to find out whether they are homonymous tribes, as is more probable, considered as more closely related. Their habitat coincides with those of these tribes, as can be seen in the respective places.

1. Doé or Roé (taraíra /fish/), on the Komé-ya
2. Wîhuri or Wîpuri (?), on the Komé-ya

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3. Áyawa (?), on the Komé-ya
4. Héta (?), on the Komé-ya
5. Kuíto (?), on the Komé-ya
6. Emõã-masã (guariba /howler/ monkey people), on the Komé-ya
7. Sêi-masã (barrigudo /woolly/ monkey people), on the Komé-ya (42)

• [136] 42. Sêi is the monkey of the genera Lagothrix and related ones, which is also called aimoré, because of which the natives of this group are sometimes called Aymoré-tapuya.

/216 cont./

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More rarely they cook it with tender leaves of mandioca; such a dish is called maniçoba (from the Nheengatú manib, mandioca, and çob, leaf), and in Tukano dõxkõ põ (Uaupés dõxkõ põnĩ; from dõxkõ, maniva /manioc cutting for planting/, and põnĩ, leaves).

The peppery water (with or without salt) in which the fish or the piracuí was boiled is what is called byá-tõ (literally pepper pot) and in the Lingua Geral quinhapira (from quinha, pepper, and pirá, /217/ fish); and in which the pieces of beijú are moistened before being taken to the mouth.

*192
• 136

4) The fish. There are many species of fish (46)

46. It is estimated that there are about 3,700 species of Brazilian fish, approximately 1,700 of these species being fresh-water fish. (J. H. Leoni -- Peixes Brasileiros /Brazilian Fish/ -- Edit. Anchieta, 1946.)

existing in the rivers of this zone northwest of the Amazon, and the natives use almost all of them (47).

[115]

47. A Tukano Indian, João by name, an old fisherman from S. Francisco (river Tiquié) assured us in 1955: "We eat all the fish, except the pirá-boto." Boto or pirá-boto /dolphin/, also called pirá-yauara (that is, dog fish, and in Tukano oxkó puxtistéro, blower of water?), is a cetacean mammal, four species of which are given for the Amazon region: the white one, known as uiára (Inia Geoffroyensis, Blaw.); the black one or pixúna (Inia Amazonica); the red one or piranga (Delphines fluviátilis, Gervais), and the gray one or tucuxí (Stena tucuxi). The Boto, moreover, is a fish that appears in the legends, as well as the pirarara (in Tukano mahã-wí, which means precisely

/217 cont./

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/footnote 47 cont./ arara fish, due to its beautiful colors). One notices some prejudice against "the fish with skin," as being causes of dermatosis.

We shall mention some of the principal and most common species:

a'mã, jandiá or catfish (Rhamdia of various species)
á'fia, ray (plagiostomous fish)
bixpári or wai-dõxparí, ararí
bo'téa, aracú (Leporínus múlleri, Gunther)
bõ'õ, piranha (various species of Serrasalmo)
bu'ú, tucunaré (Cíchla ocelláris, Schneider)
bũxkõá-siró, ituim (Sternópygus carápus, and various species of Gymnotidae)
bũxpó, acará (Geophagus brasiliensis and various other species of Cichlidae
bũxpõ wai, spider fish (trachinoid fish)
doé, traira (Erythrinus taraíra, Lin.)
ixkyã, mandí (various species of Siluridae)
mã'hõã, jacundá (Crenicíchla sexatílis, Lin.)
mĩx'pĩ-pũrĩ-wí, piraíra
mõõ, piraíba (Blanchyplatystoma filamentosum)
õxtã-bwí, uatucupá
sã-ã, puraquê (Gimnótus /Gymnotus/ eléctricus, Lin.)
sẽ'ã, pirá mirim (Brycon striatus)
uhú, pacú (Dóras dorsális, Cuv. and various species of Prochilodus)
yaká, acarí, cascudo (loricaridoid fish of the swamps)
yox'sõ-wí, pirá-pucú (Xiphostoma Cuvieri, Spix.)
/218/ wai-wexkõ, cow fish (Manátus americánus, mammal of the lower Rio Negro)
waxpé, aracapurí (fish of the genus Erythrinus)

/286 cont./

*192 164 • [136] g) Eye trouble -- Kaxpé-ri pũrĩsé. Ophthalmia is frequent in all the tribes, from simple irritation by rubbing the eyes with the dirty hands, up to cases of conjunctivitis and trachoma. There are yellow ants, called taxi or fire ants, which live in some woods and bushes and whose bite is painful and poisonous, even causing a degenerescence of the cornea. The Makú, especially, *192 164 are often bitten by these ants and suffer in their vision.

h) Dysentery, Yohá -- Diarrhea, Di-yohá -- Intestinal fevers, Uháke. Dysentery, diarrhea, and intestinal fevers are frequent and /287/ caused by spoiled food, waters polluted (40)

> 40. Rivers and streams (igarapés) are made up in long stretches by stagnate waters, in which not infrequently are seen, on the whole liquid surface, pollen, petals, leaves, and other organic elements in decomposition. Ordinarily these same watercourses, at least during the months of high water or even during the entire year, are found in communication with swamps and putrefactive waters, as will easily be verified by anyone who crosses some stretch of the Uaupés forest. If we exclude perhaps the stretches with cachoeiras in the great rivers, it is possible that a meticulous analysis would condemn as unhealthy all the remaining and vast aqueous surface of the region.

or with a high dosage of timboina (at the time of fishing with timbo). Dysentery is frequent, moreover, on the occasion of the native feasts, caused by excessive drinking.

164 i) Venereal diseases. In the legends, it seems to us, there is a reference to venereal diseases. Nevertheless, there are few

/290 cont./

356 Not infrequently, however, because of the dogs that also live
[136] there (and we have at times seen dogs sick and covered with sores),
[231] the ground is dusty, favoring the procreation of the bichos-de-pé /foot fleas/ (cullex pénetrans) and fleas.

Not infrequently the fruit rinds are thrown into a corner to rot,
[514] producing an unpleasant odor. This is unbearable, due to the vomitings and defecations in the maloca itself during the dabacuris. One can sometimes perceive a peculiar odor in the native povoados.

b) On the person.

515 The body hygiene is also deficient. They take a bath every morning, and more during the day. It is a bath to refresh, however, rather than to clean. Not having soap available to eliminate the grease from the body and hair, one not infrequently sees layers of dirt on some parts of the epidermis, especially in the folds of the skin and in the hairy parts. Even those who use /291/ soap, such as the school pupils, give off an unpleasant and characteristic odor.

296 Although they know how to wash clothes, and some of them do it well, in the majority of cases they keep the clothes on the body until they are very dirty, or even until they rot. Precisely the following custom is to be noted: they wash their own clothes with certain frequency when new. When they consider them old, they will not wash them any more. If they get wet, they let the clothes dry on the body.

356 Their primitive hammocks of tucum are never washed as a
515 rule, and in a little while they are darkened by the sweat, smoke, and grime. They climb into the hammock with the body dirty. The only care will be, perhaps, to rub the soles of the feet, one against the other, in order to clean them of soil.

574 With all freedom, an Indian, even a strange one passing by the maloca (we have seen this even in the case of Indians of different tribes), will lie down during the day in the first hammock that he finds vacant, while he rests and converses.

5: Goldman E-5 (1939-1940) 1963
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133 igneous rock dot the country. These hills seem to have little interest for the Cubeo, but the mesas with their sandstone caves are held to be the dwellings of dangerous demons.

● 136 (251) Fish are generally abundant and are represented by hundreds of species. The favorite of all tribes is the aracú, which the Indians commonly smoke to preserve. The piranha and the river anaconda are the constant river hazards. The piranha seem always to be present, as can be proved by throwing animal entrails into the river. The waste is hit by the fish almost instantly and devoured within minutes. The Indians, however, do not dread either the anaconda or the piranha, but when preparing to bathe they circumspectly drum the surface of the water with their cupped hands to drive these creatures off. The river anaconda reaches a length of over 20 feet and is regarded as dangerous only in the vicinity of submerged trees, which it uses for leverage in seizing a victim and pulling him under. However, children who play constantly in such waters are aware of the hazard but are not afraid, nor are their elders anxious for them. I heard of no specific cases of injury from either piranha or anaconda. The man-eating cayman of the sluggish llanos rivers is absent here and the smaller cayman is a minor hazard.

The Northwest Amazon has its share of tropical forest game, although, as Lord Wallace observed (1870, p. 446), the Amazon is a mammal-poor region. The jaguar is feared in its supernatural aspect only. The peccary, until recently hunted by a group of men armed with spears, is acknowledged to be dangerous and aggressive when challenged. The tapir will also charge when annoyed, but neither animal fills the Indian with dread. For the rest, the forest game is small and shy. It consists of the small red deer, the rodents such as paca, capybara, and agouti, the raccoon-like coati, monkeys, and armadillo. River otters are common but are not molested. When they surround a canoe with their excited barking the Indians greet them with a discreet silence and wait for them to submerge again. Bird life is rich but of small economic importance.

All visitors to the region have described vividly their unpleasant encounters with its insect life. The Indians are made equally miserable by the swarms of pium gnats and sand flies. Careless scratching [164] of an insect bite produces dangerous ulcerations. I have seen Indians who had lost several square feet of skin from such spreading ulcers. Chigger (*neguas*) hygiene is a preoccupation of all residents of the Northwest Amazon. The Indians are expert in expelling the spherical sacs with a deft pressure from a stick or knife blade. In the forest the sting of the red ant bothers the naked Indians more than the clothed

5: Goldman E-5 (1939-1940) 1963
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visitor. On the other hand, the leaf-cutter ant is a specialist on clothing. I was once covered by a swarm of these ants while asleep. When I had carefully removed the last of them I was left with but a leather belt and a few tatters of trousers and shirt.

The anopheles mosquito is generally absent in the Cuduiarí region where I did my field work. On the whole, the health of the Cuduiarí Indians is good. Carate (*purú*), a skin pigment disorder apparently of spirochete origin, common everywhere else in the Northwest Amazon, was far less in evidence on the Cuduiarí. Children suffered from worms and other intestinal parasites but infant mortality was not particularly high. There were no epidemics during my stay. The recollections of the Indians about serious illness go back to the 1918 influenza epidemic that apparently ravaged the native populations in the region. Women, in particular, suffered from the painful purulent conjunctivitis, which they attributed to insect molestation in their manioc gardens. The bloated abdomens of children whose diet is too generous with carbohydrate and deficient in protein is a common sight along the Vaupés, but is less evident on the Cuduiarí, where native life and diet is still almost intact. As for the Cuduiarí itself, the people at the mouth of the river, the higher-ranking *Hehénewa* sibs, seemed generally more sturdy, vigorous, and aggressive than the Indians who lived upstream.

Dr. Hamilton Rice, who explored the Vaupés in 1907–08, observed that the most physically powerful Indians came from the Cuduiarí. He noted men who were six feet tall and over, strongly built with thick arms and powerful torsos. Actually somatological variability is considerable on the Cuduiarí, ranging from marked mesomorphy to moderate ectomorphy. But this observation of mine is not based on measurements. Dr. Rice (1910) has published a physical description of the Cubeo based upon anthropometric observations. I quote from it:

> Their color is an olive brown corresponding to No. 4 of Broca's scale and seems invariable, a conclusion based on a comparison of the scale with many hundreds of subjects on parts of the cuticle least exposed to sun and pigmented decoration. The eye is dark, palpebral fissure narrow, not oblique, pointed at its external aspect, and the upper lid so heavy at times as to suggest the puffiness of oedema; but the eye by no means conforms invariably to so Mongolian a criterion, closely resembling the European eye in many other cases. The hair is black, lanky, coarse in the male, fine and glossy in the female. The faces are escutcheon-shaped and hairless, the chins rounded and receding, noses from straight and busque to hooked and Chinese flat types, region of cheek bones flat, lower lips large and inclined to turn slightly downward. The ears are not large, lobes absent or slightly devel-

originally worked wild rubber for one of the great rubber barons and they had earned their clothing in exchange for their labours. Their torn trousers were only a veneer of the civilized world, for here they seemed to come into their own element: they talked to each other in Tukano; they became alert to the forest they knew so well.

We were living in a closed world of limited horizons, on either side the thick forest, ahead the river and above a ribbon of sky. Giant emerald kingfishers with orange heads and long black beaks darted out in front of us. Myriads of white butterflies rose off the sandbanks, settling on our bodies to enjoy the salty sweat. On occasions we saw a delicate wader like a sandpiper bob up and down on the sand near the water's edge. The water had now changed colour, no longer black but a deep wine red, as it flowed over the pale sandy bed. We supposed this colour was due to the high iron content in the rock.

Our first major halt was made at Pedro's house. He had established himself as a tradesman between the Indians on the upper Piraparaná and the civilized rubber gatherers of Mitú. He bought *farinha* from the Tukano in exchange for fish-hooks, salt and cloth. His magnificent thatched house was a foretaste of what we were to see. But the occupants with their dishevelled clothes, the sheets of crude rubber hanging from the beams and the iron cooking pots, seemed a strange paradox.

We unloaded all our equipment, sending Candilo and his assistant back to Mitú with *Vencedor* and the larger outboard motor. With him went one of our valuable cameras whose shutter had jammed during the first day, and a note to Nestor in Bogotá, warning him of the difficulties he would encounter and advising him again to travel as light as possible. Of the now depleted party, José and Uriel were to be our guides throughout the journey; Matias would ensure that we reached the first Indian habitation on the Piraparaná; while Bernavez went on ahead in his dugout canoe carrying two drums of our fuel. We were joined by one more man, old Miguez, who brought his own small Indian canoe. From now on we would have to make double journeys with *El Diablo* until we reached Indians who would carry our loads in their own canoes.

Next morning, while Donald and Horacio repacked much of the kit, Brian and José went ahead with a small load in *El Diablo*. The Ti narrowed and then divided; here our route towards the Piraparaná portage lay up a tiny tributary, the Caño Berada or Fish Bow Creek, as it was known to the Indians. With our arrival in the Berada, a mere stream flowing out of the undergrowth, our whole mode of travel changed. We could no longer use the motor; instead we had to push the boat upstream. We spent the rest of the day waist-deep in water, clambering over submerged timbers and occasional rocks; an Indian out in front cut a way through the fallen trees.

Christmas Day saw us cross two rock ledges where the boat had to be com-

6: Moser and Tayler E,N-5 (1960-1961) 1967 SQ19 Tucano SQ19

pletely unloaded and then dragged over. That evening was a beautiful one and we made camp at an old *mitasava*, the Indian traveller's staging point, where he erects a small palm-thatch shelter. We must have been on higher ground, for it was dry and sandy while the forest had changed to small birch-like trees, with lichen and moss underfoot. Somehow this was an appropriate place to eat our wild Christmas turkey which Miguez had shot earlier in the day and drink each other's health from the precious bottle of 'medicinal' whisky.

The next day our watery struggle continued and progress became even slower. Only half the equipment reached our camp site, this time back in low-lying forest. That evening Donald and José went ahead to the next stream junction to return at dark with the news that there was barely any water at all in the stream, and that we would be pushing the boat over dried-out sandbanks. Matias, our hardest worker, departed across country to the Piraparaná. He left at dusk, his coca pouch slung across his back to ward off the pangs of hunger. He promised to return in three days with men from the first habitation on the river; he was true to his word but it took him more than three days.

That night there was a disquieting atmosphere in the camp. Horacio was even more unhappy than usual about our excessive amount of equipment. Our three remaining Indians, José, Uriel and Miguez, kept to themselves, talking through half the night. We awoke to find Miguez vanished, never to be seen again, and José and Uriel packing their own belongings on to their backs. They said they were going to join Matias and bring back more men – we knew they were about to desert us.

We made them put down their gear and then listened to their tale of woe. We were not feeding them well enough; they wanted more than just *farinha*, they needed rice as well. They were being made to carry too much, and the stream beds were so dry that it would be impossible for us to get through until the rains arrived. So we compromised, we agreed to leave behind some of the fuel if necessary and to give them the same food as ourselves; we repeated our promise to pay all the Indians who worked for us in cloth and trade goods – or even money if it was of any use to them.

During the day we pushed the boat, first down to the previous site and then, fully loaded, back towards our present camp. Once Horacio lost his way when taking a short cut; he was not well and we thought it was due to a recurrence of malaria. That night he became worse, and with him unfit we decided to go ahead on a reconnaissance with José, leaving him to guard the equipment and recover, while we tried to reach the other side of the portage; if necessary we would go overland to find the first house.

Early next morning we packed our rucksacks and left with a week's supplies. Walking over high ground with willows, lichen and moss, to our great joy we reached the western entrance to the portage after only two hours. We walked through the low scrub for half an hour, along the path

Tukano

122 The last days before reaching the first Tukano house on the Piraparaná were not easy ones. At one point we had to cross two formidable waterfalls where all the equipment and fuel was carried overland, while we dragged the boat over the riverside rocks to avoid the midstream torrent. At the first of these the boat was lowered over a twenty-foot rock wall by means of a crevice into which we had forced timbers. *El Diablo* began to show severe signs of weakness. The ribbing above the hollowed log hull began to give and the planking above it worked loose at the joints. Large lumps of pitch came astray and we found ourselves caulking her sides with strips torn from our trousers. On many occasions we hit submerged rocks and logs, and the further we went the more we had to bale. Once a jagged rock edge pierced a large hole in the bows and water came gushing in. One thing was certain: an aluminium boat would by this time have been ripped to pieces.

Our journey downstream was a cold, wet and dreary affair. Both Donald and Horacio had ceased to wear boots because of raw blisters. Our shins had become a mass of open sores from knocks sustained underwater. But these exposed rocks gave Brian opportunities for geology. Much to everyone's dismay – except his – *El Diablo* became more and more weighed down by samples which found their way into the used biscuit tins. José always wanted to know whether there was gold, but there never was, nor indeed were there any fossils. We were attempting to make a compass traverse of our route, but our methods at this stage were hardly accurate.

We made camp one night on the driest land available, near a junction with another tributary. It was an unhealthy spot with bats swooping low beneath the trees. Later one of our guides had his toe incised by a vampire bat and woke in the morning to find his hammock soaked in blood; these bats often carried rabies. While Horacio was making breakfast, a scorpion ran up his arm. When he yelled, José, who was standing close by, flicked it dexterously into the hot ashes of the fire.

Some days later, after an unusually long stretch of paddling, we jumped
• 136 into the water to pull *El Diablo* over a fallen tree. A large boa constrictor unfurled itself from beneath the boat, shot between our legs and zigzagged swiftly through the water in front, its dark green body coiling and recoiling as it vanished down the river.

It is a mistake to think that the forest is alive with poisonous reptiles and fierce animals. The discomforts stem from ants, insects and many varieties of stinging flies. We rarely saw wild animals although birds were quite plentiful. In this higher part of the river, a particular small bird would always warn all other creatures of our approach with a piercing three-note whistle. Calling louder and louder it was answered by others in the vicinity. The noise was rending and the more we talked, the more it sang. The Indians called it the *Wa-pey-yer*, and we later heard this bird had driven some explorers mad.

122 For the first time in a week the sun pierced the thick canopy of leaves,

6: Moser and Tayler E,N-5 (1960-1961) 1967 SQ19 Tucano SQ19

survives, the cultivated plants have been strangled by weeds and secondary growth. 249

The *cacique*, the *maloca*'s pet bird, accompanies the Indians, flying from bush to bush and cawing raucously as she glides low over their heads, her olive-green breast almost brushing their hair. She perches on a charred tree-stump, looks at them as they leave the old *chagra* and enter the forest, gives a loud 'caw' and flies back to the *maloca* to see what edible scraps can be found. [136]

In the early morning the tall forest is dank and cool, a place of silence broken only by the occasional chatter of the Indians as they move rapidly along, their sure footsteps delicately gliding over the mass of roots which forms a base to the pathway. Few birds and no animals are about; the sun's rays piercing through the thick leaf vault give life to what might be a dead world. Suddenly they come to a wide expanse of cleared land. There is a chaotic mass of fallen trees, black from recent fires, surrounded by the forest wall. It is as if a great explosion had occurred leaving behind only the charred remains.

Every year or two, when the dry season comes in late November or December, the men cut down an area of forest, and about two months later, just before the rains return, they burn the fallen timber to make a new *chagra*. With each new *chagra*, the men, who do all the clearing and burning, move further afield, so that eventually, after some five years or more, the *maloca* too will be moved to be near the plantation. 241 462

This system of shifting agriculture, the men as it were preparing the ground for the women to work on, is carried on incessantly. Partly owing to soil exhaustion, partly because of weed strangulation, the areas of cultivation must be constantly changed, and so the moving Indian population covers wide areas of otherwise untouched Amazonian forest. 241 221

It is now January; the smell of the fire still clings to this battlefield of black charcoal. Soon, with the arrival of the rains in March, the women will plant out the manioc cuttings and by late October the first crop will be harvested; so for two years they may expect to get reasonable manioc yields from their *chagra*, after which they must move again. 241 462

The men run over the fallen tree-trunks and from the new *chagra* they move into an area partly overgrown by weeds and secondary growth. Here, placed almost mathematically across the *chagra*, in contrast to the haphazard cultivation of other plants, are the avenues of coca shrubs. 249 462

Perhaps the ritual associated with the taking of cocaine during festivals and tribal ceremonies, apart from its daily use, explains the attention given not only to its later preparation but also to the planting and picking of the leaves. The common coca shrub, always tended by the men, stands about five feet high when fully grown and may last five or more years. It is the most important of the stimulants taken by the Tukano, some of whom are heroic addicts taking as much as two ounces a day. Their life is partly geared to their addiction, and their daily practice is to come to the *chagra* and

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7
Missing Links

Until we had passed the last rapids on the Piraparaná we were always anxious, as we were never sure how long José would stay with us. Had he left us we might have found it difficult to get other Indians to help, and certainly we could never have managed *El Diablo* ourselves. There were many occasions when he had threatened to leave, but so far he had been persuaded not to. So it was with some relief that we passed these rapids, though there was nearly disaster, for José determined to take *El Diablo* through fully loaded. We watched aghast from the bank as for a moment the boat completely disappeared from view in the turbulent water. But somehow she stayed afloat.

Now the river was anything from thirty to a hundred yards across. It wound sluggishly this way and that between low banks covered in dense forest and bordered with *miriti* palms. There were no houses, for most of the land was liable to flooding during the wetter months. We saw no Indians on the river, nor any canoes moored to the banks. At times the river meandered forming giant oxbows, where, through the sparse jungle, we could see a bend in the river that we had passed perhaps an hour before. At one of the bends a low cliff rose sheer from the water's edge. It was formed from clay and shales of Tertiary age, and in the beds Brian found deposits of lignite, tree-trunks and plant remains. To the west of us lay the Apaporis, to the east continuous forest as far as the Río Negro, the home of strange, seldom-seen foresters, the nomadic Maku.

Since leaving Bréo's *maloca* we had been troubled less by flies and insects; the jigger worms, which had laid their eggs in our feet when we walked barefoot about the *malocas*, no longer bothered us. Only the *nutchis* remained as they took some days to incubate. One night after an exceptionally large one was removed from Donald's shin, he wrote, 'A rather painful process. However it had its reward for it was definitely a record breaker – fat, furry, and fully half an inch in length....' They could only be extracted by using nicotine to poison them, or rubber latex to block their breathing holes where they lay under the skin. We never learnt how we got these painful worms.

ABOVE AND BELOW: *Dancing at the festival to celebrate the manioc harvest.*

[see p 92-B]

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Probably they resulted from a small fly or mosquito injecting the egg into the bloodstream. Horacio had come across them in the Llanos, but only in cattle and dogs, never in humans.

Though seldom bothered by mosquitoes we occasionally ran into a belt of the *pium* fly which could give very irritating bites. At night when we found a sand-spit, or dry ground in the forest where we could sling our hammocks in the trees, we would first inspect the ground to ensure that our equipment would not be covered in termites or ants by the morning. Fish, which the Indians caught for us, was now our main food. One type looked and tasted almost like salmon; another, a flat fish, was very similar to the *piraña* with its razor teeth and protruding lower jaw. Even in February, towards the end of the dry season, many days were overcast. When the sun did appear, it was usually followed by a heavy afternoon rainstorm often accompanied by a cold wind, so that in spite of our nylon jackets we found ourselves shivering with cold. One day we passed very close to a green water snake. It coiled itself and thrashed the water with its tail, its head out of sight, until it finally disappeared locked in the jaws of its invisible assailant.

Along the river banks and high in the trees overhead, we saw herons, ibis and egrets, a brownish bird similar to a bittern; king-fishers, not so brilliantly coloured as the British kind, and duck would rise off the water in front of the boat. The varying shades of green were broken by white hibiscus, the crimson flowers of the chocolate tree, the flashing blue wings of the giant morphous butterfly or the wasp yellow of a swallowtail, beautiful butterflies which sting like fire-ants as caterpillars and live on blood, offal and manure. Sometimes the transparent glinting wings of a dragonfly passed by, while at night shadowy nightjars flitted over the river between the pin-point glows of the fireflies.

On the evening of the second day after leaving the rapids we sighted the Apaporis, a river of strange contrasts with its great width, muddy banks and putty-coloured water. We had decided to reach the falls of Jirijimo. They were alleged to be a magnificent sight when the river was in full spate. A few people had seen the falls from the air, though in the days of the rubber boom the river was used as a highway, and the *caucheros* had made ramps through the forest as a portage. But this movement up and down the river had always been during the wet season, and we were travelling during the last month of summer, when in fact the river was at its lowest ebb.

For two days we moved up the Apaporis after making a dump of all our equipment, including the Indian canoe which we hid in the forest, for we knew we would have to return the same way. On the evening of the second day we reached the falls of Playa, somewhere below Jirijimo. In the winter it would have been possible to have hauled the boat on to the great sandstone slabs and pulled it up the ramps, which, though terribly overgrown during the last thirty years of disuse, could have been cleared sufficiently. But now